ABSTRACT

Generally, techniques for analyzing foreground-segmented images are disclosed. The techniques allow clusters to be determined from the foreground-segmented images. New clusters may be added, old clusters removed, and current clusters tracked. A probabilistic framework is used for the analysis of the present invention. A method is disclosed that estimates cluster parameters for one or more clusters determined from an image comprising segmented areas, and evaluates the cluster or clusters in order to determine whether to modify the cluster or clusters. These steps are generally performed until one or more convergence criteria are met. Additionally, clusters can be added, removed, or split during this process. In another aspect of the invention, clusters are tracked during a series of images, and predictions of cluster movements are made.